

Work Order ID 150987

Monday, September 12, 2016 8:57:53 AM

150987

Page 1

Item ID: 646.4002 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: AS350 Wiper Deflector
Start Date: 9/2/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 9/12/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: DAS 21 9-89 Date: SEP 13 2016 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
646.4000	C1	<u>DAS 6 9-89</u>						<u>DAS 21 9-89</u>	<u>16-09-16</u>
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP 646.4002								
						<u>DAS 27 9-89</u>			<u>SEP 19 2016</u>
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									<u>SEP 19 2016</u>
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.00							
Quality Control						<u>DAS 27 9-89</u>			<u>SEP 19 2016</u>

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval 	
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐		☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design ☐	☐	Operator ☐		☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data ☐	☐	Offset/Setup ☐		☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling ☐	☐	Supplier ☐		☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre ☐	☐	Training ☐		☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material ☐	☐	Use for Testing ☐		☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport ☐	☐	Poor Information ☐		☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge ☐	☐	Rushing ☐		☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA ☐	☐	Product Improvement ☐		☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation ☐	☐	Process Improvement ☐		☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process ☐									
Misidentified ☐	☐	Past Due ☐									
				OTHER :							

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00							
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP 646.4002 Location : FG102								
140	QC21 - Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

DAS
27
9-29
SEP 19 2016

DAS
21
9-29
SEP 20 2016

DAS
21
9-29
SEP 20 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

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Date : _____		Step #: _____		QTY Effective : _____		MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition			
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
		OTHER : _____					

Picklist Print

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Page 1

Work Order ID: 150987

150987

Parent Item: 646.4002

646 4002

Parent Item Name: AS350 Wiper Deflector

Start Date: 9/2/2016

Required Date: 9/12/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.12.23 NEW ISSUE DD VERF:JLM
16.01.07 DWG REV.C DD VERF:JLM

IPP REV:B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

646.3410
646 3410
LH Wiper Deflector

Manufactured No

Each 27.0000

**

1

PC

DAS
6
9-89

Location

Loc Qty

Loc Code

cck010

27

125083

14

97822

13

646.3411
646 3411
RH Wiper Deflector

Manufactured No

Each 25.0000

**

1

PC

DAS
6
9-89

Location

Loc Qty

Loc Code

cck010

25

125083

10

97823

15

NAS1149F0332P

Purchased

No

Each 2,536.000

**

16

PC

DAS
6
9-89

NAS1149F0332P
Washer

Location

Loc Qty

Loc Code

GA

282

m133709

282

ST262

2254

m135058

254

m135544

2000

16

SEP 19 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Work Order ID: 150987

150987

Parent Item: 646.4002

646 4002

Parent Item Name: AS350 Wiper Deflector

Start Date: 9/2/2016

Required Date: 9/12/2016

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

Each

2,078.000

6

MS21042L3

Nut

**

PC

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001

14

m133790

14

GA

273

m134360

112

m135135

161

OVER007

600

m135530

600

ST303

1191

~~m135407~~

591

m135600

600

6

MS27039-1-19

Purchased

No

Each

135.0000

2

MS27039-1-19

Screw

**

PC

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

82

m134134

82

ST280

53

m135058

3

m135603

50

2

SEP 19 2016

Monday, September 12, 2016 8:57:52 AM

Shop Packet Print

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150987

Parent Item: 646.4002

646 4002

Parent Item Name: AS350 Wiper Deflector

Start Date: 9/2/2016

Required Date: 9/12/2016

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-18

Purchased

No

Each

1,761.000

2

MS27039-1-18

Screw

**

PC

DAS
6
9-89

Location

Loc Qty

Loc Code

GA

247

123522

51

124326

196

over006

1171

124326

1171

ST280

343

124326

343

646.3814

Manufactured

No

Each

18.0000

2

646 3814

Wiper Bracket

**

PC

DAS
6
9-89

Location

Loc Qty

Loc Code

CCK106

18

125083

18

600.1012

Purchased

No

Each

23.0000

1

600 1012

Sealant PR1425B2 (#654 sem)

**

PC

DAS
6
9-89

Location

Loc Qty

Loc Code

cck017

23

m135407

5

m135530

8

m135600

10

MS24694-S53

Purchased

No

Each

280.0000

2

MS24694-S53

SCREW

**

PC

DAS
6
9-89

Location

Loc Qty

Loc Code

ST284

280

113359

280

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																	
OTHER : _____																									



APICAL INDUSTRIES, INC.
dba DART AEROSPACE

ENGINEERING CHANGE NOTICE NO.

05304

SHEET 1 OF 1

DWG NO. 646.4000

REV: C

PREPARED BY J. BECKER

DATE: 02/04/16

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: AS350 CABLE CUTTERS KIT

APPROVED BY: ENGR

MFG

QC

EFF. NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: REVISED F/N 12.

ECR:
N/A

ACTION ITEM:
1. N/A

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 150987 MLS
16-09-13

SHEET 1, BOM IS:

12	R	601.1624	8	16	LOCKNUT	MS21042L3	
F/N	TC	PART NUMBER	4006	4005	DESCRIPTION	MATERIAL	SPECIFICATION
			QTY				
DOCUMENTS EFFECTED:					CHANGE CATEGORY	DER REVIEW REQUIRED	
☐ PATTERN ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM					☐ MAJOR ☒ MINOR	☐ YES ☒ NO	

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NOTES:

1 AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.

2 INSTALL F/N 14 WITH F/N 52 & 53.

3 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMASTER-CARR P/N 75935A651.

4 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.

5 REUSE FASTENERS FROM F/N 1.

6 USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.

7 AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.

8 INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.

9 NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

UNINCORPORATED ECN(S)

05304

5	5	5	78	601.3875	SCREW	MS2464554	
1	1	1	77	646.9410	SHIM	AN3-14	
	4	4	76	601.2764	WASHER	MS27049-08	
	2	2	75	601.2973	LOCKNUT	MS27039-1-12	
	2	2	74	601.2988	SCREW	MS27039-1-12	
	2	2	73	601.2943	LOCKNUT	MS27042-3	
	2	2	72	601.3128	NUT	AN316CAR	
	2	2	71	601.3209	LOCKNUT	MS27042-4	
	4	4	70	601.2638	WASHER	MS27042-32P	
	2	2	69	601.2669	BOLT	AN3-14	
	2	2	68	601.3119	CLEVIS	AN3-14	
	2	2	67	601.3121	EYE BOLT	AN3-14	
	2	2	66	650.9201	EYE BRACKET ASSY		
	REF	REF	65	647.5701	GPS MOUNT KIT		
		2	64	601.3151	WASHER	MS27042-32P	
		2	63	601.2911	SCREW	MS27039-1-16	
	24	24	62	601.2637	SCREW	MS27039-1-16	
2	2	2	61	601.2763	BOLT	AN3-12A	
	1	1	60	646.3913	SHIM		
	4	4	59	646.3912	SHIM		
	1	1	58	646.3911	SHIM		
	4	4	57	646.3910	SHIM		
	5	5	56	600.1013	PRIMER		
	8 FT	8 FT	55	600.0129	VHB TAPE		
	1	1	54	600.1012	SEALANT	PR-1425 CLASS B	
	1	1	53	600.0991	MAGNEBOND 639B PART B		
	1	1	52	600.0990	MAGNEBOND 639B PART A		
6	10	10	51	601.2826	BOLT	AN3-14	
		2	50	646.3814	WIPER BRACKET		
		2	49	601.2910	SCREW	MS27039-1-16	
	2	2	48	601.1365	SCREW	MS27039-1-10	
	2	2	47	646.3719	DOUBLER		
	2	2	46	646.3718	CUSTOM WASHER		
	1	1	45	646.3717	DOUBLER		
	22	22	44	601.1948	SCREW	MS27039-1-19	
	2	2	43	601.1952	SCREW	MS27039-1-20	
	4	4	42	601.1956	SCREW	MS27039-1-21	
4006	4003	4004	4002	4001	FIND #	PART #	DESCRIPTION

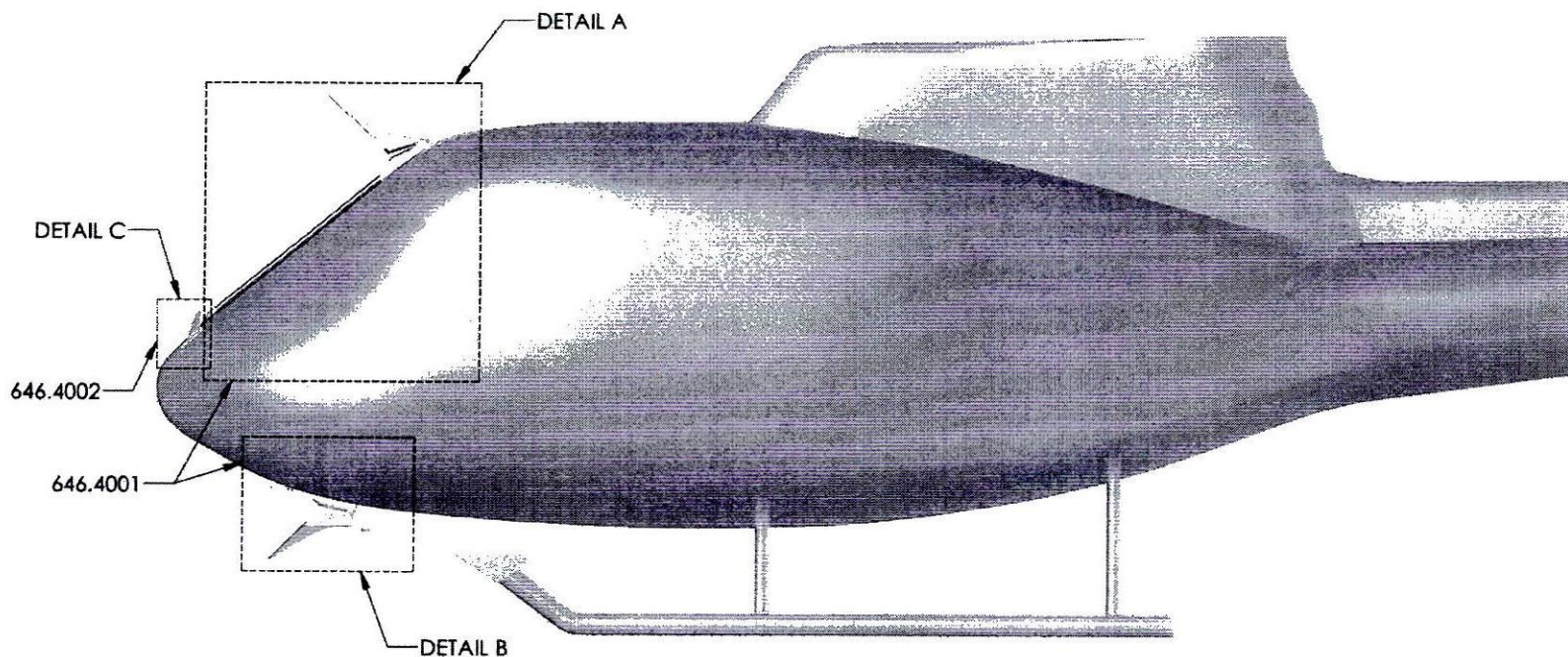
REV	DESCRIPTION	DATE	APPROVED
A	INCORPORATED ECN(S) 05304, 05305 & 05306	02/08/2010	P. BRAYO
B	INCORPORATED ECN(S) 05307 & 05308	11/04/2014	P. BRAYO
C	INCORPORATED ECN(S) 05309	09/04/2015	P. BRAYO

		2	2	41	601.2829	SCREW	MS2464554
		2	2	40	601.2831	RIVET	MS20404A-D5-7
		1	1	39	646.3716	GAUGE BRACKET	
		6	6	38	601.1953	SCREW	MS27039-1-12
	2	2	2	37	646.3715	STRUT DOUBLER	
2	2	2	2	36	601.2824	BOLT	AN3-5A
12	36		36	35	601.2277	RIVET	DC92483-9-02
6	18		18	34	600.0795	NUTPLATE	MS27047-5
3	3		3	33	601.2565	RIVET	MS20470A-D5-7
1	1		1	32	646.3813	STRUT BRACKET	
4	4		4	31	601.2822	BOLT	AN3-3A
2	2		2	30	646.3812	GUSSET BRACKET	
8	8		8	29	601.2564	RIVET	MS20470A-D5-6
1	1		1	28	646.3714	GUSSET	
	1	1	1	27	646.3610	FILLER	
3	3		3	26	601.2830	SCREW	MS2464555
2	2		2	25	601.2825	BOLT	AN3-6A
1	1		1	24	646.3811	RADIUS BLOCK	
	1	1	1	23	646.3712	CLIP	
1	1		1	22	646.3711	CLIP	
8	8		8	21	601.2832	RIVET	MS20470A-D5-5
14	14		14	20	601.2020	RIVET	CH3215-5-3
4	6	4	5	19	601.2823	BOLT	AN3-4A
1	1		1	18	601.2827	BOLT	AN3-13A
5	5		5	17	601.2912	SCREW	MS2464551
1	1		1	16	646.3713	GUSSET	
1	1		1	15	646.3210	SUPPORT	
	1		1	14	646.3710	DOUBLER	
1	1		1	13	646.3110	CHANNEL	
14	10	8	53	6	601.1624	LOCKNUT	MS27042-3
16	32	18	120	16	601.1607	WASHER	MS27042-32P
			1	10	646.3410	LH WIPER DEFLECTOR	
			1	9	646.3411	RH WIPER DEFLECTOR	
		2	2	8	647.7703	STRUT ASSY	
		2	2	7	647.0712	STRUT BRACKET	
	1	1	1	6	646.3511	STRUT	
	1	1	1	5	646.3510	STRUT	
2	2		2	4	646.3810	BRACKET	
		1	1	3	646.2910	DEFLECTOR	
	1	1	1	2	646.3001	LOWER CUTTER ASSY	
		1	1	1	646.3301	UPPER CUTTER ASSY	
X					646.4006	LOWER CUTTER FIXED PROVISIONS	
	X				646.4005	LOWER CUTTER REMOVABLE PROVISIONS	
					646.4004	FIXED PROVISIONS KIT	
			X		646.4003	CABLE CUTTERS FE WITH CUTTER FIXED PROVISIONS	
			X		646.4002	AS350 WIPER DEFLECTOR KIT	
			X		646.4001	AS350 CABLE CUTTERS KIT	
4006	4003	4004	4002	4001	FIND #	PART #	DESCRIPTION

QTY		PARTS LIST	
NEXT ASSY (S)		ORIGINAL DATE: 08/27/08 DRAWN BY: J. BRAYO CHECKED BY: J. BRAYO DRAWING APPROVAL: J. BRAYO CONTRACT NO.:	
JULES CHENIERE SPECIFIC DIMENSIONS ARE IN INCHES 10 DECIMALS ARE 2 PLACES DECIMALS ARE 3 PLACES DECIMALS ARE ANGLES ± .5°		3030 ENTERPRISE CT. SUITE A VISTA, CA. 92081 (760) 724-5300 DART AEROSPACE APCAL INDUSTRIES, INC. (DBA DART AEROSPACE) AS350 CABLE CUTTERS KIT SET (GAGE CODE) DIM. NO. B 07M26 646.4000 SCALE: NONE SHEET 1 OF 5	

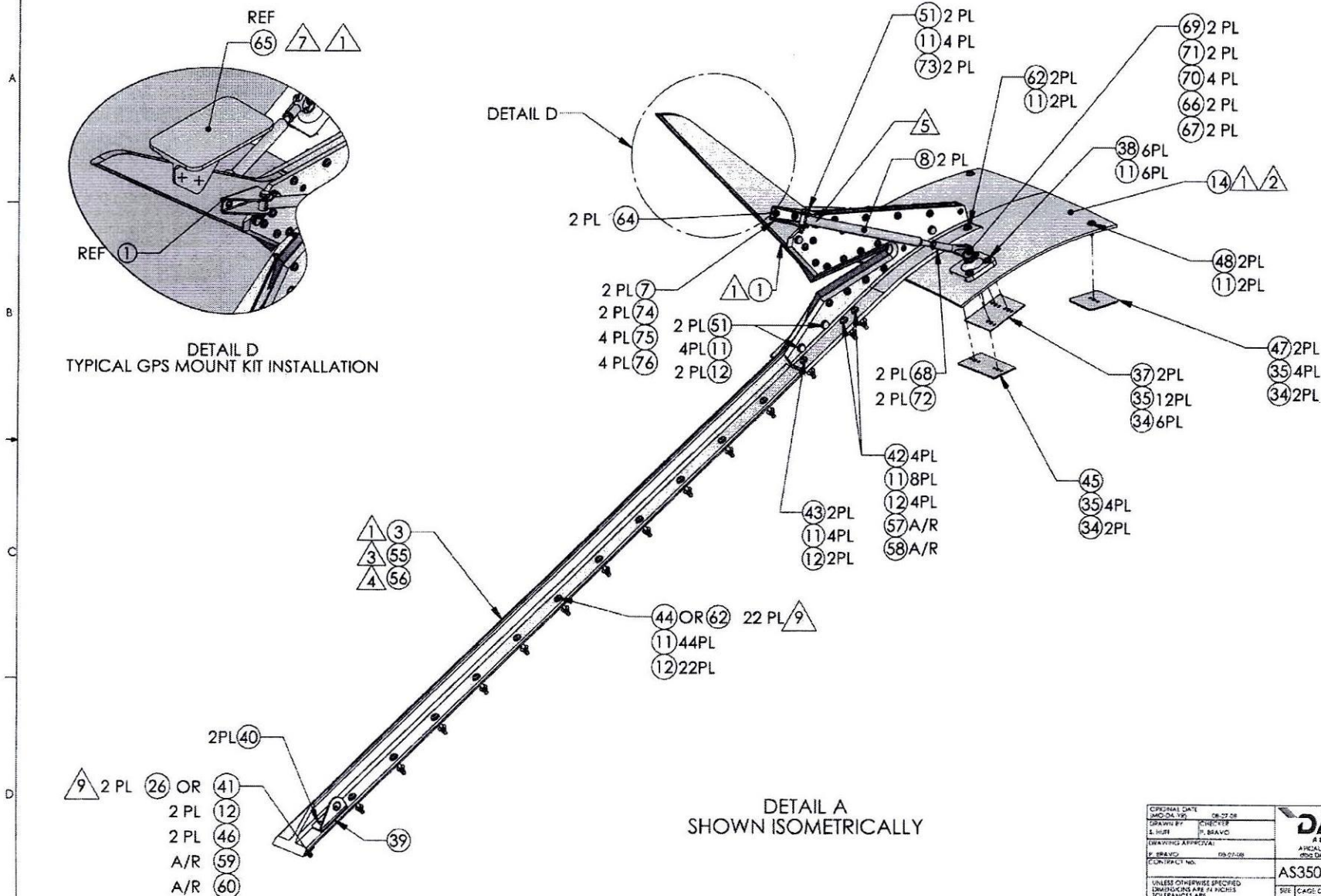
1 2 3 4 5 6 7 8

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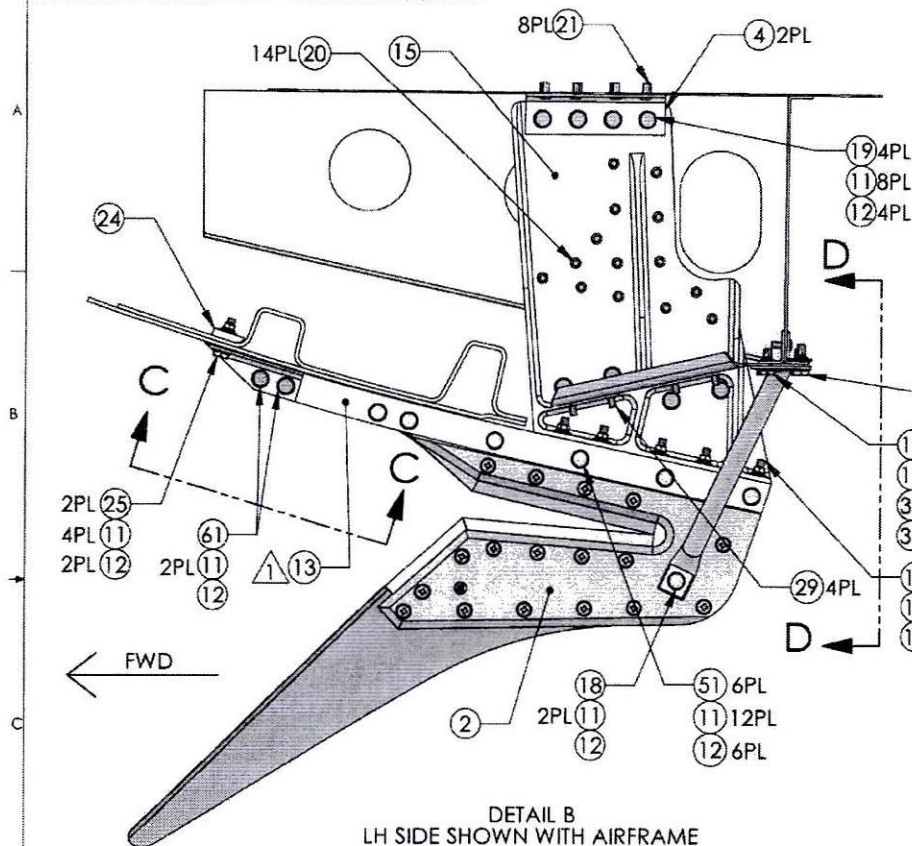
ORIGINAL DATE 08-27-08		3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY DIRECTOR		APICAL INDUSTRIES INC. DDA DART AEROSPACE	
E. HINE		P. BRAND	
DRAWING APPROVAL 08-27-08		AS350 CABLE CUTTERS KIT	
CONTRACT NO.		R/E CAGE CODE QWG. NO. 646.4000	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±0.10 3 PLACE DECIMALS ±0.005 ANGLES ± 3°		B 07M26 C	
SCALE NONE		SHEET 2 OF 5	

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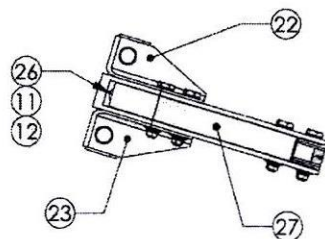


ORIGINAL DATE: 08-27-08		DART 3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760)-724-5300	
DRAWN BY: J. HUNT	CHECKED BY: J. BRAVO	AFICAL INDUSTRIES, INC. DART AEROSPACE	
UNAPPROVED APPROVAL:	DATE: 08-27-08	AS350 CABLE CUTTERS KIT	
CONTRACT NO.:		SHEET: B	REV: C
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		CAGE CODE: 646.4000	DWG. NO. 646.4000
SCALE: NONE		SHEET 3 OF 3	

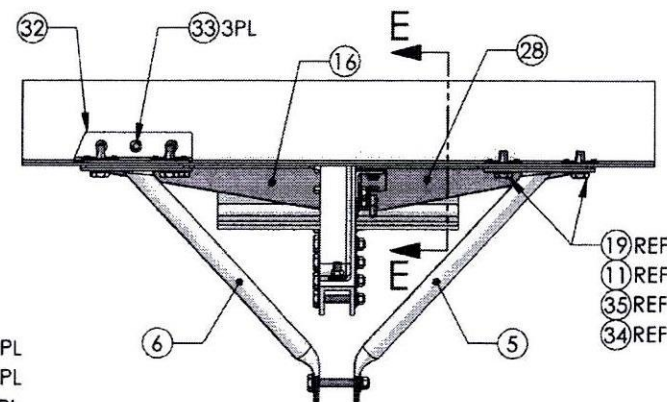
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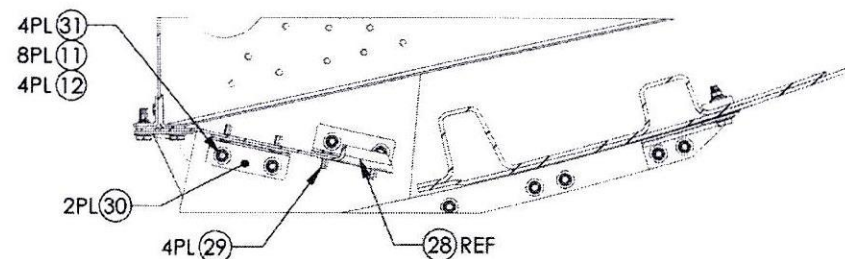
DETAIL B
LH SIDE SHOWN WITH AIRFRAME



SECTION C-C



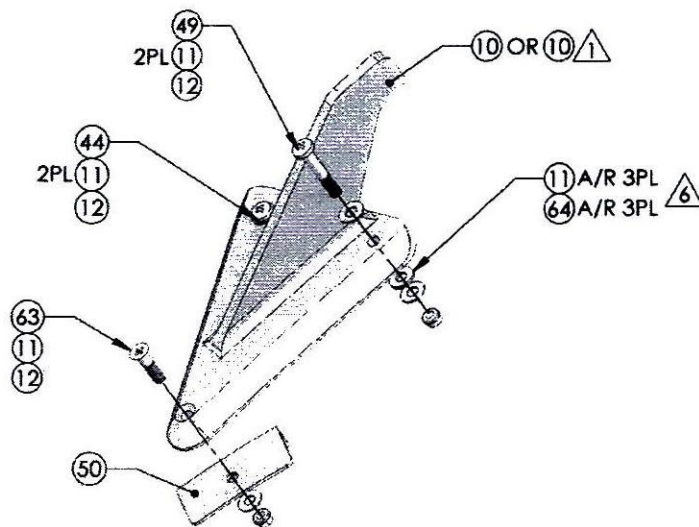
SECTION D-D
CUTTER HIDDEN FOR CLARITY



SECTION E-E

ORIGINAL DATE 10-01-08		3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760)-724-5300	
DRAWN BY L. H. H.	CHECKED BY P. BEAVER	DART AEROSPACE APICAL INDUSTRIES INC. DBA DART AEROSPACE	
DRAWING APPROVAL P. BEAVER	DESIGN CONTRACT 100	AS350 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DIMENSIONS ARE 2 PLACE DECIMALS ± 0.10 3 PLACE DECIMALS ± 0.05 ANGLE ± 1°	REV B	CAQI CODE 07A156	QWG NO. 646.4000
SCALE NONE	SHEET 4 OF 5		

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 DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPRESS
 WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



DETAIL C
 LH SHOWN EXPLODED
 RH OPPOSITE

ORIGINAL DATE 08-27-08		3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760)-724-5300	
DRAWN BY S. HUNT	CHECKED P. BRAVO	DART AEROSPACE APICAL INDUSTRIES INC. DBA DART AEROSPACE	
DRAWING APPROVAL P. BRAVO			
CONTRACT NO.		AS350 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS 8 & 10 2 PLACE DECIMALS 2 & 6 ANGLES 3/4"		SIZE 1/2" X 1/2" X 1/2" B 07/1/26 SCALE NONE	DWG NO 646.4000 REV C SHEET 5 OF 5

Work Order ID 150987

Monday, September 12, 2016 8:57:53 AM

150987

Page 1

Item ID: 646.4002

Revision ID:

Item Name: AS350 Wiper Deflector

Start Date: 9/2/2016 Start Qty: 1.00

Required Date: 9/12/2016 Req'd Qty: 1.00

Reference:

Accept

N900040100

Setup Start ***NS1***

Stop ***NS2***

Cust Item ID:

Customer:

Approvals: Process Plan:

QC:

Date: SEP 13 2016 Tooling:

Date: SPC (Y/N):

Date:

Date:

Run Start ***NR1***

Stop ***NR2***

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

646.4000

C1

SEP 16 2016

100

Document Control

DOCUMENT CONTROL

0.00

100

DC

Doc.Control -USB or Paperwork

Memo

0.00

Photocopy bluefile & type labels per PPP 646.4002

DAS
21 SEP 16 2016
9-89

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.00

Quality Control

REFERENCE ONLY

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↑NOTES:

1. AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.
2. INSTALL F/N 14 WITH F/N 32 & 53.
3. 3M VHB ADHESIVE TAPE 025" THICK x .50" WIDE
VENDOR: MCMASTER-CARR P/N 75935A651.
4. 3M TAPE PRIMER 94. APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.
5. REUSE FASTENERS FROM F/N 1.
6. USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.
7. AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.
8. INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.
9. NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

UNINCORPORATED ECN(S)

05304

K	5	5	78	601.3875	SCREW	MS21039-1-10
1	1	1	77	646.9410	SHIM	MS21039-1-10
	4	4	76	601.2764	WASHER	AN611A
	2	2	75	601.2973	LOCKNUT	MS21039-1-10
	2	2	74	601.2988	SCREW	MS21039-1-10
	2	2	73	601.2943	LOCKNUT	MS21039-1-10
	2	2	72	601.3128	NUT	AN611A
	2	2	71	601.3209	LOCKNUT	MS21039-1-10
	4	4	70	601.2638	WASHER	AN611A
	2	2	69	601.2669	BOLT	AN611A
	2	2	68	601.3119	CLEVIS	AN611A
	2	2	67	601.3121	EYE BOLT	AN611A
	2	2	66	650.920	EYE BRACKET ASSY	MS21039-1-10
REF	REF	REF	65	647.5701	GPS MOUNT KIT	MS21039-1-10
		2	64	601.3151	WASHER	AN611A
		2	63	601.2911	SCREW	MS21039-1-10
	24	24	62	601.2637	SCREW	MS21039-1-10
2	2	2	61	601.2763	BOLT	AN611A
	1	1	60	646.3913	SHIM	MS21039-1-10
	4	4	59	646.3912	SHIM	MS21039-1-10
	1	1	58	646.3911	SHIM	MS21039-1-10
	4	4	57	646.3910	SHIM	MS21039-1-10
	5	5	56	600.1013	PRIMER	MS21039-1-10
8 ft	8 ft	8 ft	55	600.0129	VHB TAPE	MS21039-1-10
	1	1	54	600.1012	SEALANT	MS21039-1-10
	1	1	53	600.0991	MAGNABOND CURB PART B	MS21039-1-10
	1	1	52	600.0990	MAGNABOND CURB PART A	MS21039-1-10
6	10	10	51	601.2626	BOLT	AN611A
	2	2	50	646.3814	WIPER BRACKET	MS21039-1-10
	2	2	49	601.2910	SCREW	MS21039-1-10
2		2	48	601.1365	SCREW	MS21039-1-10
2	2	2	47	646.3719	DOUBLER	MS21039-1-10
	2	2	46	646.3718	COMB WASHER	MS21039-1-10
1		1	45	646.3717	DOUBLER	MS21039-1-10
22	2	22	44	601.1948	SCREW	MS21039-1-10
2	2	2	43	601.1952	SCREW	MS21039-1-10
			42	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	41	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	40	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	39	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	38	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	37	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	36	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	35	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	34	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	33	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	32	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	31	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	30	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	29	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	28	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	27	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	26	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	25	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	24	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	23	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	22	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	21	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	20	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	19	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	18	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	17	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	16	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	15	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	14	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	13	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	12	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	11	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	10	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	9	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	8	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	7	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	6	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	5	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	4	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	3	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	2	651.1956	SCREW	MS21039-1-10
PAR	PAR	PAR	1	651.1956	SCREW	MS21039-1-10

PERSONS			
NO	DESCRIPTION	DATE	APPROVED
A	MEMORANDUM TO THE PRESIDENT'S OFFICE	2008/01/10	P. B. B. B.
B	MEMORANDUM TO THE PRESIDENT'S OFFICE	2008/01/10	P. B. B. B.
C	MEMORANDUM TO THE PRESIDENT'S OFFICE	2008/01/10	P. B. B. B.

				2		2	41	601.2629	SCREW	MS24645S-7
				2		2	40	601.2831	RIVET	MS2104ADS-7
				1		1	39	646.3716	GAUGE BRACKET	
				6		6	38	601.1953	SCREW	MS2725P-12
			2			2	37	646.3715	STRUT DOUBLER	
			2			2	36	601.2824	BOLT	A-61-5A
12		36				36	35	601.2277	RIVET	CC8484C-3-77
6		18				18	34	600.0795	NUT/PLATE	MS27047-3
3		3				3	33	601.2565	RIVET	MS2204ADS-7
1		1				1	32	646.3813	STRUT BRACKET	
		4				4	31	601.2822	BOLT	A-61-3A
2		2				2	30	646.3812	GUSSET BRACKET	
8		8				8	27	601.2564	RIVET	MS2204ADS-6
1		1				1	28	646.3714	GUSSET	
		1				1	27	646.3610	FILLER	
		3				3	26	601.2830	SCREW	MS24645S-5
		2				2	25	601.2825	BOLT	AN6-6A
		1				1	24	646.3811	RADIUS BLOCK	
		1				1	23	646.3712	CLIP	
		1				1	22	646.3711	CLIP	
8		8				8	21	601.2832	RIVET	MS2704ADS-13
14		14				14	20	601.2020	RIVET	CRP713-5-3
4		6				10	19	601.2823	BOLT	A713-4A
		1				1	18	601.2827	BOLT	AN6-3A
		5				5	17	601.2912	SCREW	MS224645S-1
1		1				1	16	646.3713	GUSSET	
1		1				1	15	646.3210	SUPPORT	
		1				1	14	646.3710	DOUBLER	
		1				1	13	646.3110	CHANNEL	
14	10	8	53	6	61	12	601.1624	LOCKNUT	MS2104L-3	
16	32	18	120	16	144	11	601.1607	WASHER	NAS1-404833P	
					10	646.3410	LM WIPER DEFLECTOR			
					9	646.3411	RM WIPER DEFLECTOR			
				2	2	8	647.7703	STIPLT ASSY		
				2	2	7	647.0712	STRUT BRACKET		
				1	1	6	646.3511	STRUT		
				1	1	5	646.3510	STRUT		
2		2				2	4	646.3810	BRACKET	
						1	3	646.2910	DEFLECTOR	
		1				1	2	646.3001	LOWER CUTTER ASSY	
						1	1	646.3301	UPPER CUTTER ASSY	
X								646.4006	LOWER CUTTER FIXED PROVISIONS KIT	
								646.4005	LOWER CUTTER REMOVABLE PROVISIONS KIT	
		X						646.4004	FIXED PROVISIONS KIT	
			X					646.4003	CABLE CUTTER REMOVABLE PROVISIONS KIT	
				X				646.4002	ASSY W/ WIPER DEFLECTOR KIT	
					X			646.4001	ASSY W/ WIPER DEFLECTOR KIT	
4006	4003	4004	4005	4002	4001	FIND #	PART #	DESCRIPTION	MAT#	SPEC.

[illegible]